ABSTRACT

A system for filling a substrate having at least one chamber with a liquid sample is provided. The system in one embodiment includes a substrate defining a network of passageways including at least one chamber for the liquid sample, and an adapter. The adapter includes a fill reservoir for the liquid sample, a vacuum port for attachment to a vacuum source, and at least two channels. One channel allows a vacuum to be imparted to the network, and the other channel allows the liquid sample to be introduced into the network. The system also includes a mechanism that sequentially closes and opens at least one of the channels so that a vacuum can first be introduced to the substrate and thereafter the liquid sample introduced to the substrate for permitting the vacuum to urge the liquid sample to flow from the fill reservoir into the substrate. An apparatus for positioning a substrate with a plurality of sample detection chambers in a detection unit is also provided.

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